

Of course, in making this statement, I do so with all reservation, since I know nothing of the specimen beyond what has appeared in the 'Annals of Natural History' for October last.

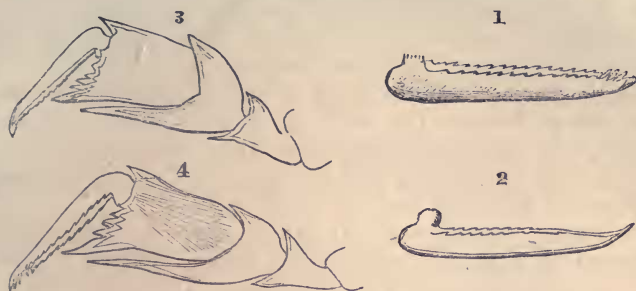


Fig. 1. Supposed vertebrate jaw; reduced from the figure in the 'Annals,' page 304.

Fig. 2. Dactylos of the fourth pair of pereopoda of *Phrosina longispina*.

Fig. 3. Leg of ditto, with dactylos *in situ*, as it appears a short time previously to moulting.

Fig. 4. Ditto, with fig. 1 inserted instead of the true dactylos.

XLIX.—On the supposed Vertebrate Lower Jaw, dredged in Mud at St. Helena. By Dr. WALLICH, F.L.S., F.G.S.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,

In the October Number of the 'Annals' you were good enough to insert my notice regarding the supposed discovery, in mud dredged at St. Helena, of a minute vertebrate lower jaw. That notice was more hastily penned than it should or indeed would have been, had I not been desirous of exhibiting the specimen at the then approaching meeting of the British Association.

Although more than one distinguished naturalist coincided in the opinion expressed by me as to its nature, there were others who at once pronounced it to be no part of a vertebrate structure, but referred it, each in turn, to portions of the invertebrate division very widely removed one from the other. My own impression, entertained and expressed from the first, was that, if not a vertebrate jaw, the object in question formed part of an Echinoderm, this supposition being based on a faint trace of reticulated texture observable under a high power at the point answering to the angle of the right ramus in the lateral view.

In order to show how diverse were the opinions expressed, I may mention that the specimen was pronounced to be—the mandible of a fish, a portion of the lingual ribbon of *Mitra*, a claw of a minute Crustacean, part of the manducatory apparatus of *Notommata* or an allied species, and, lastly, a valve of a Pedicellaria; some of the advocates of these conflicting judgments still retaining their views unchanged.

To Mr. Busk is due the merit of pointing out the extremely close analogy between the object in question and certain Pedicellariæ,—his intimate acquaintance with every kind of minute organic structure leading him to regard its Pedicellarian origin at all events as highly probable, if not certain.

On being made aware of Mr. Busk's opinion, I immediately examined the Pedicellariæ of *Echinus lividus*, of which I possess a specimen obtained in the same locality. The valves, although not identical, bear a sufficient resemblance, both in configuration and detail, to satisfy me of the probable accuracy of Mr. Busk's view; at the same time I think it better to reserve my final determination of the structure, pending still further inquiry and comparison.

The communication on the subject by Mr. C. Spence Bate (politely submitted to me, at his request, prior to its publication in the present Number of the 'Annals') will show how far the occurrence of pseudomorphs in the organic world should put us on our guard against hasty generalisation founded on semblances in figure alone.

In the case more immediately under notice, I was by no means insensible to the facts that the appearance of minute teeth along the greater portion of each ramus of the supposed jaw might be due, in reality, to simple serrature of its margin, and that the true texture of vertebrate bone was not visible in its substance. But, on the other hand, it seemed unreasonable to assume that absolute identity in structural detail should exist between an object of such minute dimensions and the homologous parts of the larger animals to which it is allied. Or, even assuming that the intimate structure must be identical in type, we might fairly suppose that minute details, observable only under the microscope in the larger orders, would become so inordinately reduced in size in an organism already microscopic, as to be invisible.

The figure accompanying my former note, although accurate as a sketch, fails to convey the full extent of the resemblance to a jaw, the projecting digitate-like processes in the region corresponding to the articulation being too jagged, and the serrature too saw-like.

Probably the true figure of the object, seen from above, is that

of an elongated spoon, as shown in the adjoining diagrammatic woodcut, the serrature being present along the entire margin



except at the broader extremity, where it takes the form of the digitations which, on a side view, constitute the most elevated portion; and anteriorly, where it is interrupted by the four large hollow teeth in the neighbourhood of the symphysis; the intermediate mass, seen in profile in the original figure, being a triangular and somewhat irregular flattened ridge.

I remain, Gentlemen,

Your most obedient Servant,

G. C. WALLICH.

L.—*Descriptions of a few West-African Birds.*

By G. R. GRAY.

To the Editors of the *Annals of Natural History.*

GENTLEMEN,

The following descriptions of a few birds, which appear new to the fauna of West Africa, may interest some of your readers. They were collected on the Cameroons Mountains, at an elevation of 7000 feet above the level of the sea. They were brought to this country by Mrs. Isabel Burton, the estimable lady of the distinguished traveller and Vice-Consul, Capt. Burton, and kindly presented by her to the British Museum.

*Pratincola salax.*

*Pratincola salax*, Verr., Rev. et Mag. de Zool. 1851, p. 307.

*Cossypha Isabella.*

Head black, with a shining white mark between the nostril and the middle above the eye; back olivaceous-black; wings black, each feather margined with olivaceous; beneath the body rufous-buff, deeper on the breast; rump and outer tail-feathers deep rufous, with the tips of the second, third, and fourth feathers, and tip and outer margin of the first feather, black; the four middle feathers black, with the outer margin of the fifth near the base deep rufous.

Total length, 6''; wings, 2'' 11''; tarsi, 13''; bill from gape 9''.

This bird is named in compliment to Mrs. Isabel Burton.